### (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

### (19) World Intellectual Property Organization

International Bureau



## 

# (43) International Publication Date 18 March 2004 (18.03.2004)

**PCT** 

# (10) International Publication Number WO 2004/023014 A3

(51) International Patent Classification<sup>7</sup>:(21) International Application Number:

PCT/US2003/025716

032003/023/10

E21B 19/16

(22) International Filing Date: 18 August 2003 (18.08.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/412,371

9 September 2002 (09.09.2002) US

- (71) Applicant (for all designated States except US): ENVENTURE GLOBAL TECHNLOGY [US/US]; 16200 A Park Row, Houston, TX 77084 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): COSTA, Scott [US/US]; 2011 Willow Point, Kingwood, TX 77330 (US). RING, Lev [US/US]; 14126 Heatherhill Place, Houston, TX 77077 (US). MENCHACA, Jose [US/US]; 9800 Pagewood Lane, Number 210, Houston, TX 77042 (US).
- (74) Agent: MATTINGLY, Todd; Haynes and Boone, LLP, 1000 Louisiana, Suite 4300, Houston, TX 77002-5012 (US).

- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, Cl, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

#### Declaration under Rule 4.17:

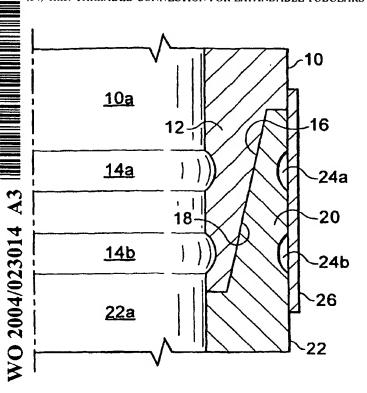
of inventorship (Rule 4.17(iv)) for US only

#### Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

[Continued on next page]

(54) Title: THREADED CONNECTION FOR EXPANDABLE TUBULARS



(57) Abstract: A threaded connection for expandable tubulars. There is a first tubular (10) with external threads (16) and a second tubular (22) with matching internal threads. Each of these tubular has stress concentration grooves (14a, 14b, 24a, 24b). There is a sleeve (26) that goes over the connection between the threaded portions of the tubulars. After connection these tubulars can be expanded downhole in a wellbore.

## WO 2004/023014 A3



(88) Date of publication of the international search report: 3 March 2005

(15) Information about Correction:
Previous Correction:
see PCT Gazette No. 41/2004 of 7 October 2004, Section II

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

## INTERNATIONAL SEARCH REPORT

International application No.

1	PCT	/1	100	١٦.	יכו	57	16
- 1		/ L	JOL	33	_	)/	

A. CLASSIFICATION OF SUBJECT MATTER									
IPC(7) : E21B 19/16 US CL : 166/380, 207; 285/333									
According to International Patent Classification (IPC) or to both national classification and IPC									
B. FIELDS SEARCHED									
Minimum documentation searched (classification system followed by classification symbols) U.S.: 166/380, 207, 381, 382, 206; 285/333, 334; 403/297									
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched									
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) Please See Continuation Sheet									
	UMENTS CONSIDERED TO BE RELEVANT								
Category *	Citation of document, with indication, where ap	opropriate, of the relevant passages	Relevant to claim No.						
х	US 5,924,745 A (Campbell) 20 July 1999 (20.07.19	1, 3-5, 7-9, 11, 12,							
Y	9 - column 4, line 27. SU 1,756,531 A (KRYZHANOVSKII et al) 28 Mar	rh 1990 (28 03 1990). Firmen 1	15, 17-21						
-	abstract.		1, 3-5, 7-9, 11, 12, 15, 17-21						
Y	WO 99/23354 (METCALFE) 14 May 1999 (14.05.	1, 3-5, 7-9, 11, 12, 15, 17-21							
A, E	US 6,622,797 B2 (SIVLEY IV) 23 September 2003	(23.09.2003), whole document.	1-12, 15-21						
A, E	US 6,607,220 B2 (SIVLEY, IV) 19 August 2003 (1	1-12, 15-21							
A, P	US 6,564,875 B1 (BULLOCK) 20 May 2003 (20.0)	I-12, 15-21							
Α	US 2002/0108756 A1 (HARRALL et al) 15 August	2002 (15.06.2002), whole document.	1-12, 15-21						
A	US 6,322,109 BI (CAMPBELL et al) 27 November	1-12, 15-21							
A	US 6,085,838 A (VERCAEMER et al) 11 July 2000	1-12, 15-21							
	documents are listed in the continuation of Box C.	See patent family annex.							
"A" document	pecial exegories of cited documents:  defining the general state of the art which is not considered to itsilate relevance.	"T" later document published after the int priority date and not in comflict with understand the principle or theory un	the application but cited to						
"E" carlier ap date	plication or patent published on or after the international filing	"X" document of particular relevance; the considered novel or cannot be considered movel or cannot be considered when the document is taken along the constant in the constant is taken along the constant in	ered to involve an inventive						
"L" document to establi (as specif	t which may throw doubts on priority claim(s) or which is cited th the publication date of another citation or other special reason fied)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such							
"O" document	t referring to an oral disclosure, use, exhibition or other means	combination being obvious to a person							
"P" document published prior to the international filing date but later than the priority date claimed.									
	ctual completion of the international search	Date of mailing of the international sear	ch report						
	04 (12.03.2004)	<b>13</b> JAN 2005							
	ailing address of the ISA/US il Stop PCT, Ann: ISA/US	Authorized officer							
Cor	nmissioner for Palents	David J. Bagnell V V vol 4							
	D. Box 1450 xandria, Virginia 22313-1450	Telephone No. (703) 308-1113	ļ						
Facsimile No. (703) 305-3230									
Form PCT/ISA/210 (second sheet) (July 1998)									

INTERNATIONAL SEARCH REPORT	PC17US03/25716					
·						
Continuation of B. FIELDS SEARCHED Item 3: Derwent, JPO, EPO						
Terms: Thread, Stress concentrator, stress, expand/expanding, mbular, casing						

Form PCT/ISA/210 (second sheet) (July 1998)